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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,772	11/08/2001	Frank Ivan Morris	155634-0118	1380

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EXAMINER

WONG, KIN C

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 09/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/005,772

Applicant(s)

MORRIS ET AL

Examiner

K. Wong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

This is a response to amendment filed on 6/7/04.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims (1-17 and 21-26) are rejected under 35 U.S.C. 103(a) as being unpatentable over Szeremeta (5796542) in view of Berger (4531167).

Regarding claims 9, 12 and 14-17: Szeremeta discloses a servo track writer (as depicted in figure 3 of Szeremeta) including:

an actuator (as depicted in figure 3A of Szeremeta) having a plurality of actuator arms;

a read head (element 62 in figure 3A) connected to one of the actuator arms;

a write head connected to another of the actuator arms (see col. 39-58 of Szeremeta);

a spindle (element 96 as depicted in figure 3A – see associated descriptions for details);

a chuck to secure a reference disk and a copy disk onto a spindle, the spindle to rotate the reference disk and the copy disk (securing the disk pack is considered well known common disk drive function); and,

a controller (as depicted in figure 3).

However, Szeremeta fails to mention the servo writing that read servo information from a reference disk and write plurality servo information on the plurality of other disks. Berger is relied for the teaching of reading the servo from a reference (master) disk and write servo to the disks (see col. 7, lines 4-16 of Berger).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the servo writing procedure of Szeremeta with a master disk as taught by Berger. The rationale is as follows: one of ordinary skill in the art would have been motivated to provide a self-contained servowriter system without a clean room environment as suggested in col. 3, lines 38-42 and col. 3, lines 17-21 of Berger.

Regarding claim 10: the limitations of wherein the controller further is to: position the read head at a first track on the reference disk; follow at least a portion of the first track with the read head; determine a position error signal for the read head; correct a position of the read head using the position error signal; and read the servo information from at least the portion using the read head are considered known Szeremeta describes the similar functions to the noted functions in col. 10, lines 1-25. Berger also discloses the similar noted functions in col. 7, lines 17-36.

Regarding claim 11: Szeremeta teaches that further comprising a plurality of copy disks and a plurality of write heads associated therewith (in col. 10, lines 1-25 of Szeremeta).

Regarding claim 13: Szeremeta teaches that wherein the spindle comprises a fluid dynamic bearing (or air bearing) spindle (in col. 8, lines 8-33 of Szeremeta).

Regarding claims 1-8: method claims (1-8) are drawn to the method of using the corresponding apparatus claimed in claims (9-17). Therefore method claims (1-8) correspond to apparatus claims (9-17) and are rejected for the same reasons of obviousness as used above.

Regarding claims 21-26: claims (21-26) have limitations similar to those treated in the above rejections; and are met by the references as discussed above. Claim 21 however also recites the following limitations of a fluid dynamic bearing spindle that which Szeremeta disclosed in col. 8, lines 8-33.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims (18-20) rejected under 35 U.S.C. 102(b) as being anticipated by Berger (94531167).

Regarding claim 18: Berger discloses a servo track writer (as depicted in figures 1 and 2 of Berger) including:

an actuator (element 54 in figure 2) having a plurality of actuator arms and heads attached thereto;

a spindle means to rotate a reference disk and a copy disk, the reference disk to contain a plurality of tracks having servo information to be read by at least one of the

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heads (in col. 6, line 59 to col. 7, line 2 where Berger describes the master and the copy are mounted on a spindle for servo writing);

a means to secure the reference disk and the copy disk to the spindle means (securing the disk packs to the spindle are considered an inherent – see col. 6, lines 59-64 of Berger);

a means to perform a track following operation on the reference disk (see col. 7, lines 17-36 of Berger);

a means to write the servo information onto the copy disk before the copy disk is incorporated into a hard disk drive assembly (writing a copy of the servo information onto a disk prior to the final assembly of the drive are considered inherent).

Regarding claim 19: Berger teaches that wherein the means to perform the track following operation includes: means (element 54 in figure 2) for positioning a first head on a track on the reference disk; means for following at least a portion of the track with the first head; means for determining a position error signal for the first head; means for correcting a position of the first head using the position error signal; and means for reading the servo information from at least the portion with the first head (in col. 6, line 59 to col. 7, line 16 of Berger).

Regarding claim 20: Berger teaches that further comprising means for incorporating the copy disk into the hard disk drive assembly, the copy disk to contain the servo information copied from the reference disk (in col. 6, line 59 to col. 7, line 3 of Berger).

### ***Response to Arguments***

Applicant's arguments filed 6/7/04 have been fully considered but they are not fully persuasive because the arguments are directed to the newly amendment claims.

Regarding Oliver et al in the remarks filed on 6/7/04: applicants asserted that Oliver et al do not read servo from the reference surface and then write servo onto a copy surface/disk, and, Oliver only read clock signal from the reference surface when write to the copy surface/disk. The examiner disagrees because clock signal is the first portion of the servo signal in the servo writing process. Therefore, Oliver does read servo signal from the reference surface and write servo to the copy surface/disk.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Moraru is cited for using a reference disk in a servo writing. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Wong whose telephone number is (703) 305-7772.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ekw

25 Aug 04

  
**SINH TRAN**  
**PRIMARY EXAMINER**